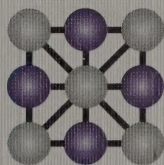


DEPARTMENTAL FORECAST REPORT

1997

1998



Ministry of Research,
Science and Technology

Te Manatu Putaiao

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Responsible Minister: Minister of Research, Science and Technology

TERMS AND DEFINITIONS USED

APEC	Asian Pacific Economic Cooperation Forum
ASEAN	Association of South East Asian Nations
EEO	Equal Employment Opportunity
GST	Goods and Services Tax
Non-DOC	Non-Departmental Output Class
OECD	Organisation for Economic Cooperation and Development
OOS	Occupational Overuse Syndrome
PGSF	Public Good Science Fund
R&D	Research and Development
RS&T	Research, Science and Technology
UNESCO	United Nations Educational, Scientific and Cultural Organisation

STATEMENT OF RESPONSIBILITY

The forecast Financial Statements of the Ministry of Research, Science and Technology for the year ending 30 June 1998 contained in this report have been prepared in accordance with section 34A of the *Public Finance Act 1989*.

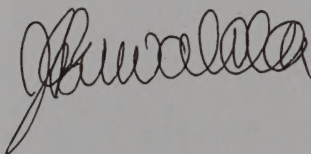
The Chief Executive of the Ministry of Research, Science and Technology acknowledges, in signing this statement, that he is responsible for the forecast financial statements contained in this report.

The financial performance forecast to be achieved by the Ministry for the year ending 30 June 1998 that is specified in the statement of objectives is as agreed with the Minister of Research, Science and Technology who is the Minister responsible for the financial performance of the Ministry of Research, Science and Technology.

The performance for each class of outputs forecast to be achieved by the Ministry for the year ending 30 June 1998 that is specified in the statement of objectives is as agreed with the Minister of Research, Science and Technology, who is responsible for the Vote administered by the Ministry.

We certify that the information contained in this report is consistent with the appropriations contained in Estimates for the year ending 30 June 1998 that are being laid before the House of Representatives under section 9 of the *Public Finance Act 1989*.

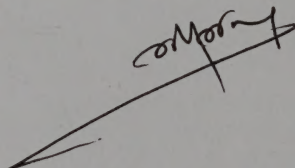
Signed



James Buwalda
Chief Executive

26 May 1997

Countersigned



Foo Juay Loong
Chief Financial Officer

26 May 1997

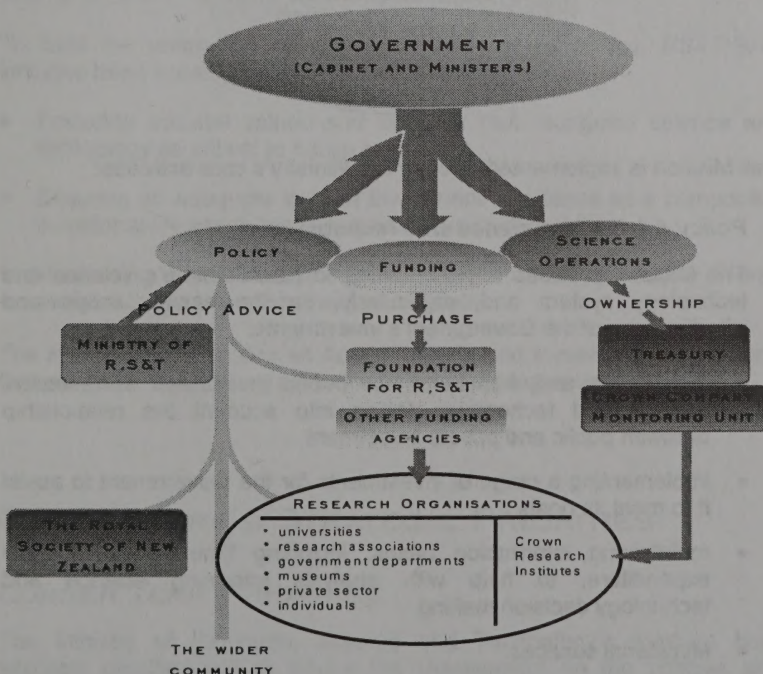
PART A - INTRODUCTORY INFORMATION

THE ROLE OF THE MINISTRY OF RESEARCH, SCIENCE AND TECHNOLOGY IN THE SCIENCE AND TECHNOLOGY SYSTEM

The Government's involvement in the science and technology system is structured so that a clear separation is maintained between the functions of policy advice, the funding of science (purchase) and science operations (ownership). The roles of the key organisations are summarised in Figure 1.

The particular role of the Ministry of Research, Science and Technology is to provide advice to the Government on science and technology policy, scientific and technical advice and coordination, and to provide services to the Government in regard to the management of contracts for science and technology provided by third parties. The Ministry has no permanent operational responsibilities in science and technology, both to avoid conflict of interest with its advisory function and to reflect the general policy of restricting core departments to activities which are best handled at governmental level.

FIGURE 1: The Overall Organisational Structure of the Science and Technology System

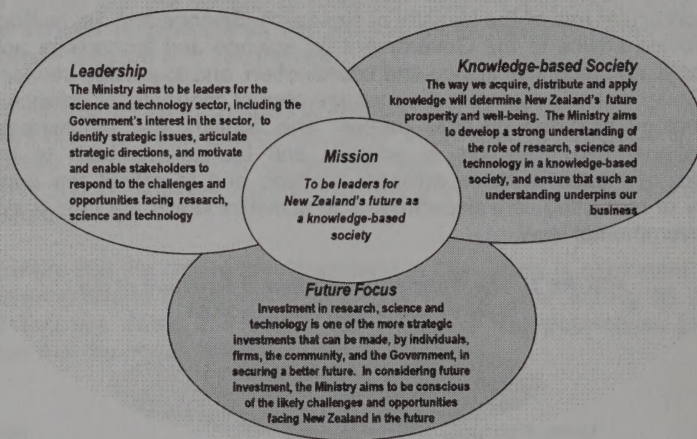


To perform its particular role within the science and technology system, the Ministry is required to interact at many levels with purchase agents, relevant government departments, science providers and end-users of science and technology. These groups, as well as the Minister and the Government, represent the Ministry's key stakeholders.

THE MINISTRY'S MISSION

Figure 2 below shows the Ministry's mission, and the three principal elements that it includes:

FIGURE 2: The Ministry's Mission



This Mission is implemented through the Ministry's core activities:

- **Policy Advice for Science and Technology**

The Ministry provides advice relating to New Zealand's science and technology system and, particularly, on the nature, scope and effectiveness of the Government's investments:

- a rationale and framework for public investment in research, science and technology, taking into account the relationship between public and private investment
- implementing a range of investments for the Government to assist it to meet its goals
- maintaining information bases, including time series of R&D expenditure, to help with analysis informing science and technology decision making
- Ministerial services.

- **Scientific and Technical Advice and Coordination**

The Ministry ensures that the development of public policy is well informed by science and technology, and that science and technology "interests" are coordinated and linked, including New Zealand's integration with global technology.

- **Management of Contracts for Non-Departmental Output Classes**

The Ministry negotiates purchase agreements with purchasers/providers of non-departmental outputs, and ensures appropriate performance/accountability arrangements are in place and met.

THE GOVERNMENT'S STRATEGY FOR RESEARCH, SCIENCE AND TECHNOLOGY

In 1996, the Government published *RS&T:2010 : The Government's Strategy for Research, Science and Technology in New Zealand to year 2010*. This strategy is based on a vision for a society that understands and values science and technology and their critical role in assuring New Zealand's future prosperity and well-being, and that maximises the contribution of science and technology to wider economic, social and environmental goals through scientific research and technological innovation of the highest quality.

To fulfill the vision for research, science and technology, *RS&T:2010* includes three broad goals that will need to be achieved:

- Fostering societal values and attitudes that recognise science and technology as critical to future prosperity.
- Ensuring an adequate level of investment in science as a component in national life which has cultural value in its own right.
- Maximising the direct contribution of science and technology to diverse social, economic and environmental goals.

The strategy also includes an Action Agenda and Investment Framework, that will guide the Ministry's priorities and work programme.

THE MINISTRY'S STRATEGIC PRIORITIES

LONGER TERM PRIORITIES

The Ministry of Research, Science and Technology's medium term strategic priorities are to advise the Government on the policies and

processes necessary to achieve the goals and objectives of *RS&T 2010*, by:

- Establishing a contemporary rationale for public investment in research, science and technology, based on a "knowledge and learning" paradigm supporting Government's broad strategic goals as outlined in *RS&T:2010*.
- Aligning the public investment in science and technology with the Government's broad goals, as outlined in *RS&T:2010*, by managing this investment within a coherent framework, including goal definition and performance measurement, so that value from the investment is demonstrated and maximised.
- Enhancing systems for ensuring that Government decision-making, in general and on specific issues, is effectively informed by scientific and technical advice.
- Ensuring holistic management and integration of the Government's science and technology investment.
- The development of other policies and strategies required to meet the goals of *RS&T:2010*.

PRIORITIES FOR 1997/98

Immediate priorities for 1997/98 are as follows:

- An increasingly important role for the Ministry is that of providing advice on management and performance of public investment in science and technology. This requires an integration of priority setting, allocation and evaluation processes. There are three areas of particular importance for 1997/98:
 - implementation of a comprehensive evaluation programme for the Public Good Science Fund (PGSF)
 - a comprehensive review of priorities for the PGSF will commence, with an initial focus on developing research strategies for various sectors of the economy and society
 - enhancing investments in technological innovation through the implementation of an integrated portfolio of programmes focusing on technology awareness and information, human capital and learning-by-doing.
- Developing policy advice aimed at enhancing New Zealand's performance as a knowledge-based society will require research and scholarship in areas such as innovation systems and dynamics and the rationale for public investment. The Ministry will be placing increased emphasis on such research scholarship.
- Increased attention will be given to the facilitation of scientific and technical advice, for ensuring that Government decision-making is well informed. This will require increased dialogue with other departments

to identify and address areas where enhanced scientific and technical knowledge and expertise may be facilitated.

- Full implementation of the "science envelope", representing the Government's overall investment in research, science and technology, requires further development of administrative processes for allocating the proposed increases in science investment so as to ensure that the overall portfolio is cost-effective.
- Monitoring of the management of public investment in science and technology by third parties will be strengthened, with particular attention to those programmes managed by the Foundation for Research, Science and Technology and The Royal Society of New Zealand.
- Development of procedures for the regular monitoring of progress towards the *RS&T:2010* goals will be implemented during 1997/98. This monitoring will provide information on the attributes and performance of the science and technology system, and provide feedback for decisions on future investments.
- Coordination of science and technology will continue to be important, as purchaser and provider interests have been disaggregated. This will involve the application of National Science Strategies and other coordinating mechanisms.
- Science and technology are increasingly global in nature, as the effect of physical distance recedes and trade and other barriers are removed. The Ministry's international linkages programme will develop a strategic focus on defining and implementing the role of the Government in helping New Zealand firms, and science and technology providers, to identify and react to challenges and opportunities made available through globalisation.

FINANCIAL HIGHLIGHTS

DEPARTMENTAL OUTPUT CLASSES

In 1997/98, the Ministry expects to earn \$5.332 million (GST exclusive) in revenue from the Crown for services it will supply under the three departmental output classes detailed in the Statement of Objectives in this report (p.18). It expects to incur expenses of \$5.332 million (GST exclusive) in providing these services. Overall financial trends are summarised in Table 1 below:

The increase in Crown revenue in 1997/98 reflects commitments to additional work on the management of the public investment in science and technology. The extra resources will be applied particularly to integrated management of the public investment in science and

technology, scientific and technical advice and coordination, and monitoring of contracts for science and technology services from third party providers. In addition, expenditure on scientific and technical advice and coordination of science, previously appropriated to two Non-Departmental Output Classes (Non-DOCs), will be appropriated to the Ministry in 1997/98.

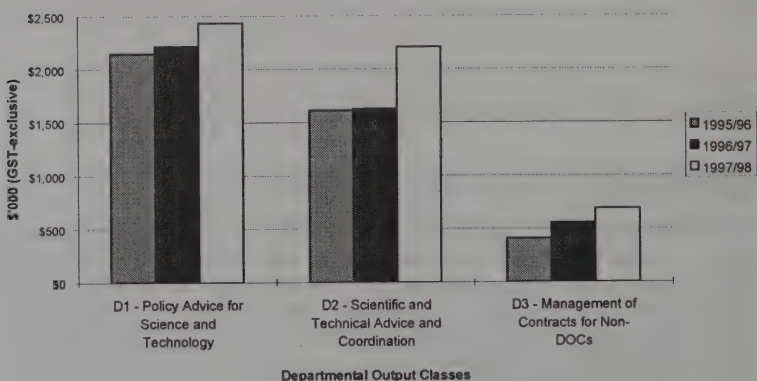
TABLE 1: Overall Financial Trends, 1994/95 to 1997/98

	1994/95	1995/96	1996/97	1997/98
	Actual \$000	Actual \$000	Estimated Actual \$000	Forecast \$000
Revenue: Crown	3,738	3,584	3,798	5,332
Revenue: Other	140	146	18	-
Output Expenses	3,993	3,964	3,759	5,332
Net Surplus / (Deficit)	(66)	98	102	45
Taxpayers' Funds	616	616	616	616
Net Cash Flows from Operating Activities	624	72	249	431

Work on the effective management of the Government's investment in science has been growing steadily over the last three years and will be the single largest component of the policy work programme in 1997/98.

Trends by output classes are illustrated in Figure 3 below:

**FIGURE 3: Appropriation Trends by Output Class, 1995/96 to 1997/98
(1997/98 Output Class structure)**



Expenditure on policy advice will continue to be the largest single component in total expenditure, but with significant changes in the scope of the expenditure.

The apparent reduction in the international relations area is due to the transfer of some funding into a Non-DOC, to better reflect the nature of the work.

A significant increase in expenditure on the management of contracts has occurred, reflecting both the increase in the investment and an increase in the level of contract management being undertaken by the Ministry.

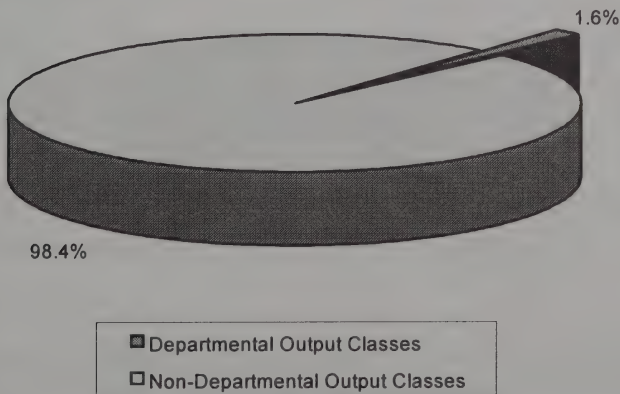
NON-DEPARTMENTAL OUTPUT CLASSES

As can be seen in Figure 3 below, a significant proportion of Vote Research, Science and Technology relates to appropriations for Non-DOCs.

In 1997/98, the Ministry will administer 11 Non-DOCs, totaling \$368.719 million (GST inclusive). In addition, a small appropriation (\$78,000) is included in the Vote for the payment on behalf of the Crown of New Zealand's subscription to the Convention du Metre.

The Ministry is responsible for making payments for services supplied under Non-DOCs, for ensuring that these appropriations are not exceeded, and for managing and monitoring, on behalf of the Minister of Research, Science and Technology, contracts with non-departmental providers. Each of the providers is responsible to the Minister for the performance in supplying those services.

FIGURE 4: Breakdown of Vote Research, Science and Technology, 1997/98



Details of the Non-Departmental appropriations within Vote Research, Science and Technology appear in Parts B1 and C2 of Vote Research Science and Technology in the Estimates of Appropriations 1997/98.

PART B - FORECAST FINANCIAL STATEMENTS

STATEMENT OF SIGNIFICANT UNDERLYING ASSUMPTIONS

These statements have been compiled on the basis of Government policies and the interim outcome of negotiations between the Ministry of Research, Science and Technology and the Minister of Research, Science and Technology on the Purchase Agreement for 1997/98, at the time the statements were finalised.

These Forecast Financial Statements comply with generally accepted accounting practice, as recommended by the New Zealand Society of Accountants.

The measurement base applied is historical cost adjusted for revaluations of assets. Revaluations are made to reflect the forecast service potential or economic benefit to be obtained through the control of assets.

The accrual basis of accounting has been used for the preparation of these statements.

These forecast financial statements have been prepared on a going concern basis.

STATEMENT OF ACCOUNTING POLICIES FOR THE YEAR ENDING 30 JUNE 1998

REPORTING ENTITY

The Ministry of Research, Science and Technology (the Ministry) is a Government department as defined by section 2 of the Public Finance Act 1989.

These are the prospective financial statements of the Ministry of Research, Science and Technology prepared pursuant to section 35 of the Public Finance Act 1989.

MEASUREMENT SYSTEM

The general accounting systems recognised as appropriate for the measurement and reporting of results and financial position on an historical cost basis, modified by the revaluation of certain fixed assets, will be followed.

ACCOUNTING POLICIES

COST ALLOCATION

Direct costs will be charged directly to significant activities. Indirect costs will be allocated to significant activities based on cost drivers and related activity/usage information.

DEBTORS AND RECEIVABLES

Receivables will be recorded at estimated realisable value, after providing for doubtful and uncollectable debts.

FIXED ASSETS

Fixed assets, or groups of assets forming part of a network, costing \$1,500 or more will be capitalised and recorded at historical cost.

DEPRECIATION

Depreciation of fixed assets is provided on a straight-line basis so as to allocate the cost (or valuation) of assets to the estimated residual value over their useful lives. The depreciation rates used for 1997/98 are:

Computer equipment	33⅓%
Motor vehicles	17.5%
Office Fitout	20%*
All Other Assets	20%

* The cost of office fitout is capitalised and amortised over the unexpired period of the lease or the estimated remaining useful lives of the improvements, whichever is the shorter.

EMPLOYEE ENTITLEMENTS

Provision will be made in respect of the group's liability for annual leave and long service leave. These will be calculated on an actual entitlement basis at current rates of pay.

STATEMENT OF CASH FLOWS

Cash means cash balances on hand, held in bank accounts, and deposits with the Debt Management Office.

Operating activities include cash received from all income sources of the Ministry and record the cash payments made for the supply of goods and services.

Investing activities are those activities relating to the acquisition and disposal of non-current assets.

Financing activities comprise capital injections by, or repayment of capital to, the Crown.

FINANCIAL INSTRUMENTS

The Ministry will be party to financial instruments as part of its normal operations. These financial instruments include bank accounts, short term deposits, debtors, creditors and foreign currency forward transactions.

GST

The forecast financial reports have been prepared net of GST.

.....

STATEMENT OF PROSPECTIVE FINANCIAL PERFORMANCE FOR THE YEAR ENDING 30 JUNE 1998

	1996/97		1997/98
	Budgeted	Estimated Actual	Forecast
	\$000	\$000	\$000
Revenue			
Crown	3,798	3,798	5,332
Other	-	18	-
Interest	45	45	45
Total Revenue	3,843	3,861	5,377
Expenses			
Output Expenses			
Personnel	2,000	1,984	2,870
Operating	1,481	1,478	2,008
Depreciation	246	226	386
Capital Charge	71	71	68
Total Output Expenses	3,798	3,759	5,332
Total Expenses	3,798	3,759	5,332
Net Surplus	45	102	45

STATEMENT OF PROSPECTIVE FINANCIAL POSITION AS AT 30 JUNE 1998

	Budgeted Financial Position as at 30/6/97 \$000	Estimated Actual Financial Position as at 30/6/97 \$000	Forecast Financial Position as at 30/6/98 \$000
Assets			
<i>Current Assets</i>			
Cash and Bank Balances	585	460	345
Prepayments	10	9	9
Debtors and Receivables	5	4	4
<i>Total Current Assets</i>	600	473	358
<i>Non-Current Assets</i>			
Physical Assets	801	791	849
Total Assets	1,401	1,264	1,207
Liabilities			
<i>Current Liabilities</i>			
Payables and Provisions	655	472	472
Provision for Repayment of Surplus	45	102	45
Provision for Employee Entitlements	85	74	74
<i>Total Current Liabilities</i>	785	648	591
Total Liabilities	785	648	591
<i>Taxpayers' Funds</i>			
General Funds	616	616	616
<i>Total Taxpayers' Funds</i>	616	616	616
Total Liabilities and Taxpayers' Funds	1,401	1,264	1,207

STATEMENT OF PROSPECTIVE CASH FLOWS FOR THE YEAR ENDING 30 JUNE 1998

	1996/97	1997/98	
	Budgeted	Estimated	Forecast
	\$000	\$000	\$000
Cash Flows from Operating Activities			
Cash provided from:			
Supply of outputs to:			
Crown	3,798	3,798	5,332
Other	-	18	-
Interest	44	45	45
	3,842	3,861	5,377
Cash disbursed to:			
Cost of producing outputs:			
Output expenses	(3,375)	(3,541)	(4,878)
Capital Charge	(71)	(71)	(68)
	(3,446)	(3,612)	(4,946)
Net Cash Flows from Operating Activities	396	249	431
Cash Flows from Investing Activities			
Cash provided from:			
Sale of physical assets	41	39	15
Cash disbursed to:			
Purchase of physical assets	(356)	(332)	(459)
Net Cash Flows from Investing Activities	(315)	(293)	(444)
Cash Flows from Financing Activities			
Cash provided from:			
Capital contribution from the Crown	-	-	-
Cash disbursed to:			
Payment of surplus to the Crown	(98)	(98)	(102)
Net Cash Flows from Financing Activities	(98)	(98)	(102)
Net Increase / (Decrease) in Cash Held	(17)	(142)	(115)
Opening Total Cash Balance at 1 July	602	602	460
Closing Total Cash Balance at 30 June	585	460	345
Forecast			

RECONCILIATION OF NET SURPLUS / (DEFICIT) TO PROSPECTIVE NET CASH FLOWS FOR THE YEAR ENDING 30 JUNE 1998

	1996/97 Budgeted \$000	Estimated Actual \$000	1997/98 Forecast \$000
Net Surplus from Statement of Prospective Financial Performance	45	102	45
Non Cash Items:			
Depreciation	246	226	386
Loss on sale of physical assets	-	8	-
Movements in Working Capital Items			
Decrease in Receivables and Prepayments	43	45	-
Increase / (Decrease) in Payables	51	(132)	-
Increase in Employee Entitlements	11	-	-
Net Cash Flows from Operating Activities	396	249	431

STATEMENT OF PROSPECTIVE MOVEMENTS IN TAXPAYERS' FUNDS (EQUITY) FOR THE YEAR ENDING 30 JUNE 1998

	Budgeted Financial Position as at 30/6/97 \$000	Estimated Actual Financial Position as at 30/6/97 \$000	Forecast Financial Position as at 30/6/98 \$000
Taxpayers' Funds at Start of Period	616	616	616
Movements during the year (other than flows to and from the Crown):			
Net Surplus / (Deficit)	45	102	45
Total Recognised Revenues and Expenses	661	718	661
Adjustments for flows to and from the Crown:			
Provision for Payment of Surplus to the Crown	(45)	(102)	(45)
Taxpayers' Funds at End of Period	616	616	616

STATEMENT OF OBJECTIVES - FORECAST FINANCIAL PERFORMANCE FOR THE YEAR ENDING 30 JUNE 1998

	1996/97 Budgeted \$000	Estimated Actual \$000	1997/98 Forecast \$000
Operating Results			
Revenue: Other	-	18	-
Revenue: Interest	45	45	45
Output Expenses	3,798	3,759	5,332
Other Expenses	-	-	-
Operating Surplus / (Deficit) before Capital Charge	116	173	113
Net Surplus	45	102	45
WORKING CAPITAL			
Net Current Assets	(185)	(175)	(233)
Current Ratio	76%	73%	60%
Average Receivables Outstanding	N/A	N/A	N/A
Average Payables Outstanding	30 days	30 days	30 days
Resource Utilisation			
Physical Assets:			
Total Physical Assets at Year End	801	791	849
Additions as % of Physical Assets	44%	42%	54%
Taxpayers' Funds at Year End	616	616	616
Forecast Net Cash Flows			
Surplus / (Deficit) on Operating Activities	396	249	431
Surplus / (Deficit) on Investing Activities	(315)	(293)	(444)
Surplus / (Deficit) on Financing Activities	(98)	(98)	(102)
Net Increase / (Decrease) in Cash Held	(17)	(142)	(115)

STATEMENT OF OBJECTIVES - FORECAST DETAILS OF PHYSICAL ASSETS BY CATEGORY AS AT 30 JUNE 1998

	As at 30 June 1997		Forecast Position as at 30 June 1998		
	Budgeted \$000	Estimated Actual \$000	Cost \$000	Accum. Deprec'n \$000	Net Book Value \$000
Computer Equipment	269	306	1,167	723	444
Office Fitout	387	364	640	347	293
Office Equipment & Furniture	60	55	175	127	48
Motor Vehicles	85	66	93	29	64
Totals	801	791	2,075	1,226	849

STATEMENT OF OBJECTIVES - FORECAST OUTPUT CLASS OPERATING STATEMENTS FOR THE YEAR ENDING 30 JUNE 1998

The Ministry will provide output classes in 1997/98 which meet the requirements of the Vote Minister in terms of their nature, timeliness, quality and quantity specifications, and cost.

SUMMARY OF DEPARTMENTAL OUTPUT CLASSES

Departmental output classes to be delivered by the Ministry of Research, Science and Technology, and their associated revenue, expenses and surplus are summarised below.

	Revenue: Crown \$000	Revenue: Other \$000	Total Expenses \$000	Operating Surplus \$000
D1 Policy Advice for Science and Technology	2,436	-	2,436	-
D2 Scientific and Technical Advice and Coordination	2,206	-	2,206	-
D3 Management of Contracts for Non-Departmental Outputs	690	-	690	-
Totals	5,332	-	5,332	-

PROSPECTIVE GST STATUS OF DEPARTMENTAL OUTPUT CLASSES FOR THE YEAR ENDING 30 JUNE 1998

	GST Exclusive (DFR) \$000	GST \$000	GST Inclusive (Vote) \$000
Departmental Output Classes			
D1 Policy Advice for Science and Technology	2,436	305	2,741
D2 Scientific and Technical Advice and Coordination	2,206	276	2,482
D3 Management of Contracts for Non- Departmental Outputs	690	86	776
Total Departmental Output Classes	5,332	667	5,999

Explanatory notes:

The forecast financial statements in this report present expenses (and revenue) exclusive of GST, in accordance with generally accepted accounting practice. When appropriated by Parliament, these expenses are inclusive of GST, in accordance with legislation. Thus:

- the GST exclusive amounts for each departmental output class correspond to "total expenses" for 1997/98 appearing in the Forecast Output Class Operating Statements on page 23 of this report, and
- the GST inclusive amounts for each departmental output class correspond to the annual appropriations for 1997/98 appearing in Part B1 of the Main Estimates for Vote Research Science and Technology.

SERVICE PERFORMANCE OBJECTIVES - OUTPUT PERFORMANCE

GENERIC OUTPUT MEASURES

Generic quality, quantity and timeliness measures for outputs supplied within all the output classes are given below. More specific measures for individual outputs are listed where appropriate.

QUANTITY AND TIMELINESS

Outputs will be of a size and scope and with target dates for delivery as described in the work programme set out in the Purchase Agreement negotiated between the Minister and the Chief Executive of the Ministry. These can be modified by agreement between the Minister and the Chief Executive during the course of the year.

This measure will be assessed by comparison of the actual work produced and its timeliness with the commitments set out in the Purchase Agreement or as modified by agreement with the Minister during the year.

COVERAGE

A background service will be provided which includes the capacity to react urgently; regular evaluation of the impacts of Government policy, regulation and expenditure on the outcomes desired by the Government; timely briefings that can anticipate issues; and support for the Minister as required in Cabinet Committees, Caucus Committees, Select Committees and in the House.

The coverage achieved will however depend on the resources required to supply the work specified under each output, as this specified work will have priority.

This measure will be assessed by ad hoc verbal and written response from the Minister during the year, with a written summary assessment to be provided by the Ministry at year end for endorsement by the Minister.

COST

Outputs will be produced within the overall appropriation levels for each output class.

This measure will be assessed by the comparison of actual costs with those set out in the Estimates or as modified in the Supplementary Estimates.

QUALITY OF DOCUMENTS

Individual items of work will satisfy quality characteristics required for Cabinet papers and other important documents. These characteristics are:

- | | |
|----------------------|---|
| Purpose: | The objective of the paper is clearly stated, it answers the questions asked by Ministers and demonstrates a clear understanding of the desired outcome(s) of the Government or the Minister. |
| Scope and Relevance: | The paper identifies the symptoms and causes of the policy "problem" and makes explicit the assumptions behind the advice. The analysis is linked to the Government's science and technology strategy and other related Government policies and goals. Implications for other Government policy areas are identified. |
| Logic: | The paper offers a logical argument linking information and assumptions to the conclusions. |
| Accuracy: | All relevant information is included and is accurate, stating the range of uncertainty. The paper is based on the maximum practicable information and identifies known gaps that could significantly affect the conclusions. |
| Options: | A range of options is presented that provide clearly differentiated choices and these are rigorously evaluated using an appropriate analytical framework. Costs, benefits, consequences, and risks of the options are assessed as part of the analysis. |
| Consultation: | Evidence of thorough and timely consultation with other Government departments and other stakeholders is presented, and their views incorporated as appropriate. |
| Implementation: | Issues of transition and implementation, technical feasibility, practicality and timing are considered, and compliance and administrative implications, and costs are identified. Specific recommendations are made to ensure Ministers decide who is responsible and accountable for the process of implementation and accountable for the policy as implemented. Legislative implications are identified. |
| Presentation: | The paper is written in good simple English, has an accurate and concise summary, meets format requirements of the Cabinet Office Manual, and presents recommendations unambiguously and concisely to Ministers. |

- Funding: The paper accurately and comprehensively describes the funding implications for the Government of the proposals put forward.
- Publicity: The paper provides advice on how publicity arising from decisions on the paper should be handled, including an assessment of key stakeholders who should be informed and how.

These quality characteristics will be assessed by:

- *a written summary assessment to be provided by the Ministry at year end for endorsement by the Minister,*
- *the results of an annual survey of key stakeholders to review their satisfaction with the Ministry's consultation processes, and*
- *ad-hoc feedback from Cabinet Office indicating that the Ministry's Cabinet papers meet Cabinet Office standards of presentation, including conciseness, clarity and consultation.*

OUTPUT CLASS D I

POLICY ADVICE FOR SCIENCE AND TECHNOLOGY

DESCRIPTION

Provision of advice on research, science and technology policy, including rationale and strategy, the nature scope and effectiveness of Government interventions, system management and integration, time series information on R&D expenditure and other relevant information on the performance and characteristics of New Zealand's science system, and the provision of Ministerial Services.

The work to be undertaken will be classified under the following output headings:

Output 1.1:	Ministerial Services
Output 1.2:	Rationale and Strategy
Output 1.3:	Investment Performance
Output 1.4:	System Management and Integration
Output 1.5:	Information and Statistics

COST

	GST inclusive \$000	GST exclusive \$000
Outputs in this class will be provided within the appropriated sum, funded by Revenue: Crown, of:	\$2,741	\$2,436

OUTPUT 1.1 MINISTERIAL SERVICES

DESCRIPTION

This output comprises preparation of draft replies for letters to the Minister, information requests, Parliamentary Questions and Official Information Act requests.

PERFORMANCE CRITERIA

MEASURES	STANDARDS
Quantity	
Number of draft responses to Ministerial correspondence and Parliamentary Questions.	260 This is an estimate based on 1996/97 data. The range is 210-300. The cost of delivering this output will not change unless the number of draft responses increases or decreases by 60.
Quality	
Working days for provision of draft responses to correspondence and questions.	10
% of first drafts accepted by the Minister.	90%

OUTPUT 1.2 RATIONALE AND STRATEGY

DESCRIPTION

This output comprises advice to the Minister on the rationale for public investment in research, science and technology, and on policy principles and strategies that will maximise the benefits of this investment. This includes development of issues papers, literature summaries, and position papers on all key policy issues; the establishment of principles for priority-setting and the development of funding strategies at the levels of the science envelope, Vote Research, Science and Technology and the PGSF; and advice on new investment.

PERFORMANCE CRITERIA

MEASURES	STANDARDS
Quantity	
Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the Chief Executive.	<p>The work programme for the year includes the following priority work:</p> <ul style="list-style-type: none"> • Key policy papers relating to the role of the Government in promoting new knowledge and technological learning in a knowledge-based society. • Advice on new policy positions and funding strategies through the science envelope and promotion of existing policy, through symposia, meetings and Internet-based interactive fora. • Preparation of the 1998 Budget "new initiatives" submission for Vote Research, Science and Technology. • Development and overall management of priority-setting process for the PGSF.
Quality	
All policy advice will conform with quality criteria set out on pages 26-27 of this document.	Refer to pages 26-27.
Substantial reports subjected to peer review.	85%
Key stakeholders provide positive feedback of Ministry consultation processes on selected major policy advice proposals.	Results of annual satisfaction survey.

MEASURES

STANDARDS

Policy proposals supported by relevant and measurable performance indicators.

Performance indicators incorporated.

indicators

always

OUTPUT 1.3 INVESTMENT PERFORMANCE

DESCRIPTION

This output comprises advice to the Minister on the performance of the Government's investment in science and technology, with reference to both the immediate outputs and outcomes over the longer term. Key issues are the design and implementation of appropriate performance measures for each of the separate output classes; assessing research performance against impacts on science and technology, the economy, society and the environment; and analysis that will inform investment decisions.

PERFORMANCE CRITERIA

MEASURES

Quantity

Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the Chief Executive.

Quality

All policy advice will conform with quality criteria set out on pages 26-27 of this document.

Substantial reports subjected to peer review.

Key stakeholders provide positive feedback of Ministry consultation processes on selected major policy advice proposals.

STANDARDS

The work programme for the year includes the following priority work:

- Advice on the performance of the PGSF, through further development of the evaluation programme begun in 1996/97, and relevant to the development of priorities for this investment, and including advice on the impact on small-medium enterprises.
- Advice on impacts of public investment on the dynamics of technological innovation, and the alignment of the PGSF to support technological innovation.
- Advice on the performance of Non-DOC research through implementation of one evaluation study.

Refer to pages 26-27.

85%

Results of annual satisfaction survey.

MEASURES	STANDARDS
Policy proposals supported by relevant and measurable performance indicators.	Performance indicators always incorporated.

OUTPUT 1.4 SYSTEM MANAGEMENT AND INTEGRATION

DESCRIPTION

This output comprises advice to the Minister on the management and integration of Government's investment in research, science and technology. This includes integration of the investment within Vote Research, Science and Technology and with other Government investment in related areas, and ensuring that the investment fits with the Government's wider strategic goals (including commitments under the Treaty of Waitangi).

PERFORMANCE CRITERIA

MEASURES	STANDARDS
Quantity	
Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the Chief Executive.	<p>The work programme for the year includes the following priority work:</p> <ul style="list-style-type: none"> • Advice on implementation of the "science envelope" concept for public investment in research, science and technology, including the role of research in tertiary education, and implementation of 1997 Budget decisions and preparations for the 1998 Budget. • Advice on aligning public investment in research, science and technology with agreed knowledge needs for Māori economic development and cultural heritage. • Advice on promoting the benefits of research, science and technology for New Zealand's knowledge-based future, including the importance of private sector investment for enabling knowledge linkages and flows. • Advice on legislation and statutory responsibilities of the Minister.
Quality	
All policy advice will conform with quality criteria set out on pages 26-27 of this document.	Refer to pages 26-27.

MEASURES

STANDARDS

Substantial reports subjected to peer review.

85%

Key stakeholders provide positive feedback of Ministry consultation processes on selected major policy advice proposals.

Results of annual satisfaction survey.

Policy proposals supported by relevant and measurable performance indicators.

Performance indicators always incorporated.

OUTPUT 1.5 INFORMATION AND STATISTICS

DESCRIPTION

This output comprises the maintenance and development of time series information bases on the research, science and technology (RS&T) system, and the provision of information from, and analyses of, these time-series data. In particular, surveys and research studies will be conducted as appropriate on research and development expenditures, human resources in RS&T, technological balance of payments, and a baseline set of indicators for measuring progress towards the goals specified in *RS&T:2010*. The information will inform policy advice, meet public requests, be disseminated to the wider RS&T community, and ensure that RS&T information held by international organisations is accurate and up-to-date.

PERFORMANCE CRITERIA

MEASURES

STANDARDS

Quantity

Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the Chief Executive.

The work programme for the year includes the following priority work:

- Development of an enhanced set of "indicators" for characterising the national innovation system, including social and private benefits accruing to knowledge investments.
- Updating of the time series database of research and development expenditures and human resources in science and technology, including publication of results and provision of information from the database to the OECD and other international organisations and clients in New Zealand.
- Development of the baseline set of indicators for measuring progress towards the goals in *RS&T:2010*, using the indicator set identified during 1996/97.

Quality

Published reports will conform with quality criteria set out on pages 26-27 of this document.

Refer to pages 26-27.

MEASURES

STANDARDS

Statistics or surveys meet or exceed relevant international standards (eg. as prescribed by the OECD), as measured by a written internal assurance in each case.

Always achieved.

Information is up-to-date, reliable and has a defined level of statistical accuracy, as measured by a written internal assurance provided in each case.

Positive assurance for 75%, or more, of parameters.

OUTPUT CLASS D2

SCIENTIFIC AND TECHNICAL ADVICE AND COORDINATION

DESCRIPTION

Provision of scientific and technical advice, including scientific and technical information, analysis and advice on public policy issues, advice on the effective coordination of research, science and technology (including through National Science Strategies), and advice on the effective coordination and management of New Zealand's international scientific and technological relations and linkages.

The work to be undertaken will be classified under the following output headings:

Output 1:	Technical Advice on Public Policy Issues
Output 2:	Coordination of Science and Technology
Output 3:	International Science and Technology Relations and Linkages

COST

	GST inclusive \$000	GST exclusive \$000
Outputs in this class will be provided within the appropriated sum, funded by Revenue: Crown, of:	\$2,482	\$2,206

OUTPUT 2.1 TECHNICAL ADVICE ON PUBLIC POLICY ISSUES

DESCRIPTION

This output comprises the provision of information, analysis and independent expert advice for the development of public policy, to ensure that policy advice is soundly informed by scientific and technological knowledge, and includes projects initiated by the Minister or Cabinet and contributions to the policy work of other departments, both directly and through officials committees.

PERFORMANCE CRITERIA

MEASURES	STANDARDS
Quantity	
Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the Chief Executive.	<p>The work programme for the year includes the following priority work:</p> <ul style="list-style-type: none"> • Proactive liaison with other Government departments, in order to enhance their "in-house" scientific and technological capabilities contributing to public policy development, including the provision of advice and assisting with facilitation, peer review, research strategy development, research planning and understanding national science priorities and policies. • Independent scientific and technical advice on specific policy issues required by Cabinet and/or the Minister, or to complement departmental advice and operations, including on climate change, marine resources, biodiversity, biosecurity issues, science databases and collections, and risk management methodologies.
Quality	
All policy advice will conform with quality criteria set out on pages 26-27 of this document.	Refer to pages 26-27.
Substantial reports subjected to peer review.	85%

MEASURES

STANDARDS

Key stakeholders provide positive feedback of Ministry consultation processes on selected major policy advice proposals.

Results of annual satisfaction survey.

Policy proposals supported by relevant and measurable performance indicators.

Performance indicators always incorporated.

OUTPUT 2.2 COORDINATION OF SCIENCE AND TECHNOLOGY

DESCRIPTION

This output comprises advice to the Minister on the need for, and facilitation of, coordination of science and technology, to ensure that the Government's collective investments in research, science and technology work in a complementary way to support the Government's goals.

PERFORMANCE CRITERIA

MEASURES

STANDARDS

Quantity

Priority work contained in the work programme completed as agreed, or as subsequently amended by agreement between the Minister and Chief Executive.

The work programme for the year includes the following priority work:

- Further development and application of a "knowledge-base" approach, to contribute to the Government's decisions on research, science and technology investment, including its direct contribution to priority setting for the PGSF.
- Reports on the progress, effectiveness and issues arising from existing coordination arrangements for science and technology, including those for possum and bovine Tb control, climate change and sustainable land management research, social policy-related research and any other formal arrangements that may be implemented.
- Advice on the establishment of new arrangements for science and technology coordination, including for marine science and biodiversity, and the implementation of new arrangements once approved.

Quality

All policy advice will conform with quality criteria set out on pages 26-27 of this document.

Refer to pages 26-27.

MEASURES

STANDARDS

Substantial reports subjected to peer review.

85%

Key stakeholders provide positive feedback of Ministry consultation processes on selected major policy advice proposals.

Results of annual satisfaction survey.

Policy proposals supported by relevant and measurable performance indicators.

Performance indicators incorporated.

indicators

always

OUTPUT 2.3 INTERNATIONAL SCIENTIFIC AND TECHNOLOGICAL RELATIONS AND LINKAGES

DESCRIPTION

This output comprises management of science and technology international cooperation arrangements, coordination of programmes for the maintenance and development of scientific and technological relations with other countries, and support for and participation in international and regional organisations.

PERFORMANCE CRITERIA

MEASURES	STANDARDS
Quantity	
Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the Chief Executive.	<p>The work programme for the year includes the following priority work:</p> <ul style="list-style-type: none"> • Implementation of bilateral inter-governmental relations, particularly with countries of the Asia-Pacific region, Federal Republic of Germany, France, the European Union and Latin America, including provision of information, implementation of formal obligations in science and technology cooperative arrangements, and facilitation of scientific and technological linkages. • Coordination of science and technology participation in the regional groupings in the Asia-Pacific region, including especially APEC and ASEAN. • Coordination of New Zealand's science and technology participation in governmental international organisations, including, especially, OECD, but also the Commonwealth Science Council, UNESCO and others.
Quality	
Formal bilateral arrangements are implemented in accordance with documented obligations.	Always achieved, unless otherwise agreed with bilateral partner.

MEASURES**STANDARDS**

Support for bilateral relations, and for participation in multilateral fora and organisations, is in accordance with stated requirements of Minister.

90%

OUTPUT CLASS D3

MANAGEMENT OF CONTRACTS FOR NON-DEPARTMENTAL OUTPUT CLASSES

DESCRIPTION

This output class comprises the management, on behalf of the Crown, of contracts for the provision of science and technology services in Non-DOCs. These services include the provision of policy advice on science and technology, contract management for science and technology outputs, public good science and technology, non-specific funding for public good science and technology, promotion of technology for business growth, the Marsden Fund, science and technology publications, national measurement standards, promotion of science and technology, human resource development for science and technology, international science and technology relations, and membership of the Convention du Metre.

In 1997/98, increased attention will be given to monitoring, against performance measures, the effectiveness of contractees in delivering outputs and contributing to the Government's desired outcomes.

PERFORMANCE CRITERIA

MEASURES

STANDARDS

Quantity

Priority work contained in the work programme is completed as agreed, or as subsequently amended by agreement between the Minister and the chief Executive.

The work programme for the year includes the following priority work:

- Negotiation and monitoring, against agreed performance standards, of purchase agreements with pre-specified providers for particular Non-DOCs within Vote Research, Science and Technology, in accordance with the instructions of the Minister; with these providers to include, especially, the Foundation for Research, Science and Technology, The Royal Society of New Zealand, and Industrial Research Ltd (for national measurement standards).
- Management of contracts for the provision of specific outputs within various Non-DOCs, including international science and technology linkages, and promotion of science and technology.

MEASURES

STANDARDS

Quality

Purchase Agreements and contestably awarded contracts with suppliers of Non-Departmental Outputs fully reflect contractual parameters set down by the Minister for Research, Science and Technology, are based on full cost disclosure by the provider and stipulation of separate prices for each output class.

Agreements are negotiated by specified deadlines, and payments are made by the due dates and are correct.

The extent to which critiques of monitoring reports identify any deficiencies in the reports and in the performance of the provider organisation or the Non-DOCs being managed, and critiques provided within specified time limits.

Purchase Agreements require provider reports summarising delivery against agreed specification, identification of significant variations and corrective actions proposed, and potential risk.

Always achieved.

Majority of agreements negotiated by specified deadlines and payments always made by due dates and correct.

Not more than one instance per agreement for each year of a deficiency being identified externally or by the Minister which is not identified in the associated critiques.

95% of critiques provided within specified time limits.

Always achieved.

COST

	GST inclusive \$000	GST exclusive \$000
Outputs in this class will be provided within the appropriated sum, funded by Revenue: Crown, of:	\$776	\$690

PART C - ADDITIONAL INFORMATION

ORGANISATIONAL STRUCTURE

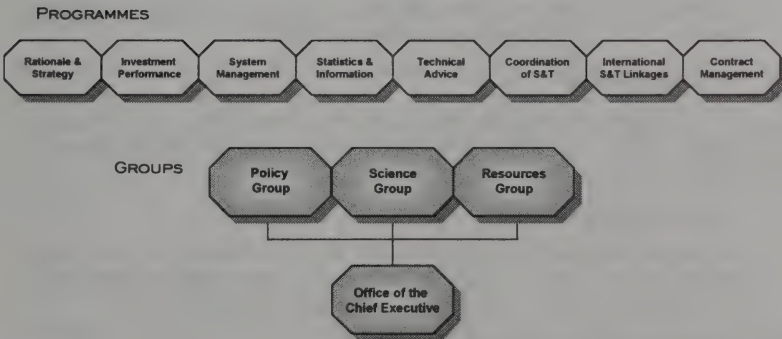
From the 1997/98 financial year, the Ministry will conduct its core business through a series of programmes, each of which corresponds to an output purchased by the Government and sits within one of the Ministry's three output classes.

The programme-based business structure has clear advantages. It gives a clear identity to external stakeholders, a client/outcome orientation for the business, and increased opportunities for internal collaboration and communication. Programme leaders are accountable for both operational programme management and strategic programme leadership, including communication and liaison with stakeholders.

Staff working within programmes are drawn from groups representing the competencies of the Ministry.

The Ministry's organisational structure is represented diagrammatically in Figure 4 below.

FIGURE 5: Organisational Structure



The **Office of the Chief Executive** is responsible for corporate management.

The **Policy Group** includes capabilities in policy advice for science and technology, management of public investment in science and technology, and management of contracts with third party providers of science and technology services.

The **Science Group** includes capabilities in scientific and technical advice for developing public policy, coordination of science and technology, and international science and technology linkages.

The **Resources Group** includes capabilities for internal support services for the Ministry, including corporate planning, corporate communications, finance, human resources, library, computer, administration and accommodation.

MANAGEMENT AND STAFF

James Buwalda	Chief Executive
[Vacant]	Chief Scientific Adviser
Kathy Garden	Chief Policy Adviser
Julie-Anne Lee	Manager, Resources

The staff of the Ministry is expected to continue at a level of approximately 38 over the coming year.

STATEMENT OF VALUES

The Ministry recognises and applies the statement of vision, purpose, principles and values for the New Zealand public service. In addition, the Ministry has the following values and attributes as an organisation:

- ***Public service***

A commitment to public service, recognising the integrity and ethics the community expects of public servants, and understanding the requirements on us to provide free and frank advice, and to implement government policies.

- ***Outcome focus***

A firm sense of the important role of science and technology in contributing to New Zealand's future as a knowledge-based society.

- ***Stakeholder awareness***

An awareness of the challenges and opportunities for science and technology in a knowledge-based society, and responsiveness to the needs and views of those we work and interact with.

- ***Professionalism and excellence***

A professional approach based on informed and competent analysis, wide and objective enquiry, high standards of professional and intellectual integrity, a striving for excellence and continuing improvement in our work, and a pride in achieving high quality, timely and effective results.

- ***Teamwork and diversity***

A commitment to working in flexible and multi-disciplinary teams for the delivery of high quality results, recognition of the full potential of each employee, respect for diverse needs and interests, and openness and tolerance.

- **Sector Awareness**

While maintaining our pre-eminent commitment to serving the Minister and the needs of the Government, also incorporating in our work knowledge of and sensitivity to the processes of research, science and technological innovation, the professional concerns of scientists and technologists, and the interests of science and technology users.

- **Consultation**

Particular emphasis on consultation with the science and technology community and users of science and technology, including Māori and the wider community.

EQUAL EMPLOYMENT OPPORTUNITIES

The Ministry is committed to the principle of equal opportunities in the workplace, recognising the benefits from having and being responsive to a diverse range of viewpoints and cultures. We continually review our human resource policies and procedures to ensure that they are equitable. We intend to integrate EEO awareness into the structures, systems and management philosophy of the Ministry, as well as identifying, and trying to meet, the employment needs of EEO designated groups.

MĀORI PARTICIPATION

The Ministry recognises the Treaty of Waitangi as the basis for considering Māori participation in the development of science and technology policy. Processes for understanding Māori issues in science and enabling Māori participation in policy development will continue to be strengthened. These processes include consultation with Māori on an ongoing basis and through specific institutional linkages.

OCCUPATIONAL HEALTH & SAFETY

The Ministry takes pride in a safe and healthy workplace and is proactive in promoting, providing and maintaining safe and healthy working conditions, equipment and work practices. We aim to provide a working environment that encourages all staff to take collective responsibility for the health and safety of themselves and their colleagues. An occupational overuse syndrome (OOS) education programme, including the provision of an annual OOS prevention seminar, will continue to be a key focus, with the objective of reducing the incidence of OOS in the Ministry.

The Ministry is committed to the provision of a high quality education for all New Zealanders. This commitment is reflected in the Ministry's policies and programmes, which are designed to ensure that all children and young people have access to a world-class education. The Ministry is also committed to the promotion of research and innovation in education, and to the development of a skilled workforce. This commitment is reflected in the Ministry's policies and programmes, which are designed to ensure that all children and young people have access to a world-class education. The Ministry is also committed to the promotion of research and innovation in education, and to the development of a skilled workforce. This commitment is reflected in the Ministry's policies and programmes, which are designed to ensure that all children and young people have access to a world-class education.

Equal Employment Opportunities

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FACTS AND FIGURES

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